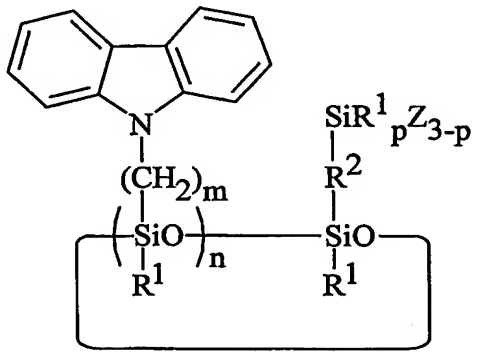
That which his claimed is:

1. A curable carbazolyl-functional cyclosiloxane having the formula:

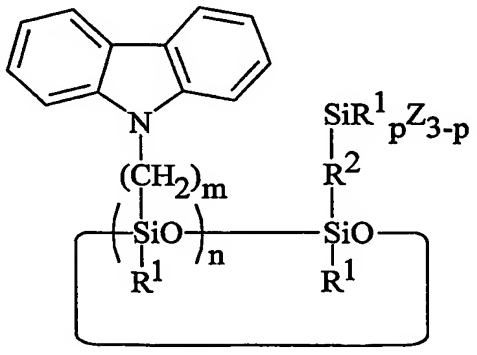


wherein R^1 is C_1 to C_{10} hydrocarbyl free of aliphatic unsaturation; R^2 is $-CH_2-CHR^3-$ or $-CH_2-CHR^3-Y-$, wherein Y is a divalent organic group and R^3 is R^1 or -H; Z is a hydrolysable group; m is an integer from 2 to 10; n is 2, 3, 4, 5, or 6; and p is 0 or 1.

2. The curable carbazolyl-functional cyclosiloxane according to claim 1, wherein n has value of 3, 4, or 5.

3. A silicone composition comprising:

(A) a curable carbazolyl-functional cyclosiloxane having the formula:



wherein R^1 is C_1 to C_{10} hydrocarbyl free of aliphatic unsaturation, R^2 is $-CH_2-CHR^3-$ or $-CH_2-CHR^3-Y-$, wherein Y is a divalent organic group and R^3 is R^1 or -H, Z is a hydrolysable group, m is an integer from 2 to 10, n is 2, 3, 4, 5, or 6, and p is 0 or 1;

(B) a condensation catalyst; and

(C) an organic solvent.

4. The silicone composition according to claim 3, wherein p has a value of 1, and further comprising a cross-linking agent having the formula $R^4_tSiZ_{4-t}$, wherein R^4 is C_1 to C_8 hydrocarbyl or halogen-substituted hydrocarbyl, Z is a hydrolysable group, and t is 0 or 1.

5. An organic light-emitting diode comprising:

a substrate having a first opposing surface and a second opposing surface;

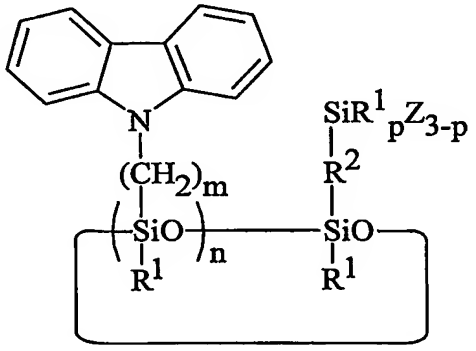
a first electrode layer overlying the first opposing surface;

a light-emitting element overlying the first electrode layer, the light emitting element comprising

a hole-transport layer and

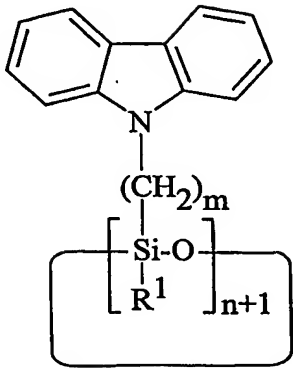
an electron-transport layer, wherein the hole-transport layer and the electron-transport layer lie directly on one another, and one of the hole-transport layer and the electron-transport layer comprises a carbazolyl-functional polysiloxane selected from

a cured carbazolyl-functional polysiloxane prepared by curing a silicone composition comprising (A) at least one curable carbazolyl-functional cyclosiloxane having the formula:



wherein R^1 is C_1 to C_{10} hydrocarbyl free of aliphatic unsaturation, R^2 is $-CH_2-CHR^3-$ or $-CH_2-CHR^3-Y-$, wherein Y is a divalent organic group and R^3 is R^1 or -H, Z is a hydrolysable group, m is an integer from 2 to 10, n is 2, 3, 4, 5, or 6, and p is 0 or 1, (B) a condensation catalyst, and (C) an organic solvent, and

at least one carbazolyl-functional cyclosiloxane having the formula:



wherein R^1 is C_1 to C_{10} hydrocarbyl free of aliphatic unsaturation, m is an integer from 2 to 10, and n is 2, 3, 4, 5, or 6; and

a second electrode layer overlying the light-emitting element.

6. The organic light-emitting diode according to claim 5, wherein the hole-transport layer is a carbazolyl-functional polysiloxane.

7. The organic light-emitting diode according to claim 5, wherein the electron-transport layer is a carbazolyl-functional polysiloxane.